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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,437	11/29/2000	Farooq Ullah Khan	67,108-052	9500
26096 7590 06/11/2007 CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			EXAMINER QURESHI, AFSAR M	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 06/11/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/725,437

Applicant(s)

KHAN ET AL.

Examiner

Afsar M. Qureshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

***Response to Amendment***

1. This action is responsive to amendment/Remarks received on 4/19/2007.

***Response to Arguments***

2. Applicant's arguments filed 4/19/2007 have been fully considered but they are not persuasive.

Applicant argued that PKTID disclosed by the cited reference, Ratzel (US 6,873,615) is not the same encoder packet identifier as claimed in the amended claim 1 wherein encoder packet identifier (PKTID) corresponds to at least a number of parallel channels in the transmission system. Examiner contends that the cited PKID is functionally the same. Ratzel is concerned about error handling in ARQ using time slots. ARQ, as known to one of skill in the art, is a protocol for parallel channels and resequencing as is evident from Shacham et al., A Selective-Repeat-ARQ Protocol for Parallel Channels and its Resequencing Analysis, IEEE Transactions on Communications, XP000297814. pp. 773-782, Apr. 1992.

No other amendments were made to the claims. Examiner maintains the same rejection mailed on 1/19/2007.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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4. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by Ratzel (US 6,873,615).

Ratzel discloses a method of transmitting a sub-packet in a system utilizing ARQ. The method steps include: transmitting a subpacket by attaching a sequence identifier, a user identifier and an encoder packet identifier (see figures 3 and 5, col. 3, lines 31-32), each remote station (user) has a unique factory assigned identifier (User ID. Col. 2, lines 29-30 and col. 3, lines 12-21); a sequence identifier 58 wherein the data packet is transmitted with identifiers to the destined user as identified in the user identifier ((see col. 3, lines 49-58).

5 Claims 2-9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratzel (US 6,873,615) in view of Rathony et al. (US 6,359,877).

Claims 2-5. In addition to the above disclosure by Ratzel, Rathonyi et al. ('Rathonyi' hereinafter), in the same field of endeavor, also discloses method of transmitting sub-packets (col. 5, lines 59-61 – smaller size packets) utilizing hybrid ARQ scheme (see col. 14, lines 24-41, col. 5, lines 7-19) wherein the packets are given sequence numbers and packet identifiers in the header part comprising bits indicating first transmission or re-transmission corresponding to number of channels and rate (see col. 14, lines 51-67). One skilled in the art would readily realize the number of bits to be assigned based on number of channels.

Claims 6-9. As to claim 6, Ratzel discloses an ARQ acknowledgment informing originating station that a DATA packet was successfully received (col. 3, lines 59-65) but does not specifically disclose receiving NACK if the originating station fails to receive the ACK message. In an ARQ scheme, used herein, receiving NACK is inherent as disclosed by Rathonyi. Rathonyi discloses receiving a NACK from the user identified by the user identifier (fig.3D); attaching a second sequence identifier to a new version of the first sub-packet to produce a new version sub-packet with identifiers (col. 10, lines 4-8, the new version first sub-packet being soft-combinable with the first sub-packet (col. 14, lines 22-41).

As to claims 7-9, Rathonyi discloses that the new version of sub-packet may be identical or may not be identical depending on transmission rate at the time when a sub-packet is retransmitted over different channel (see col. 8, lines 48-57, also see col. 5, lines 7-32).

Therefore, it would have been obvious to one skilled in the art, at the time of invention, to be able to modify Ratzel by utilizing sequence numbering scheme and incorporating the procedure of receiving NACK from the user identified by the user identifier, as taught by Rathonyi. The obvious motivation would have been to achieve efficient forms of messaging and/or transmitting and receiving data between radio stations thus avoiding repeating or discarding messages (see Ratzel col. 1, lines 36-46).

Claims 11-13. As to claim 11, in addition to the limitations discussed in the rejection of claims 1-9 above, Rathonyi discloses soft combining the received sub-

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packet with a previously received sub-packet having an identical encoder packet (see Abstract, col. 5, lines 26-32, also, col. 14, lines 22-41).

As to claims 12 and 13, received sub-packet and previously received sub-packet having identical packet ID received over channels identical or different is discussed in the rejection of claims 7 and 8 (see col. 8, lines 48-57, also see col. 5, lines 7-32).

Therefore one of ordinary skill in the art, at the time of invention, would be motivated to modify Ratzel utilizing soft-combining techniques in order to achieve an increased probability of successful decoding that in turn will result in an increased throughput and reduced overhead in variable rate packet-retransmission as supported by hybrid ARQ scheme.


6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M. Qureshi whose telephone number is (571) 272 3178. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Field Lynn can be reached on (571) 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**AFSAR QURESHI**  
**PRIMARY EXAMINER**

5/31/2007